CHAPTER 4

THE ITIL SERVICE VALUE SYSTEM

4 The ITIL service valuesystem

4.1 Service value system overview

For service management to function properly, it needs to work as a system. The ITIL SVS describes the inputs to this system (opportunity and demand), the elements of this system (organizational governance, service management, continual improvement, and the organization's capabilities and resources), and the outputs (achievement of organizational objectives and value for the organization, its customers, and other stakeholders).

Key message

The ITIL SVS describes how all the components and activities of the organization work together as a system to enable value creation. Each organization's SVS has interfaces with other organizations, forming an ecosystem that can in turn facilitate value for those organizations, their customers, and other stakeholders.

The key inputs to the SVS are opportunity and demand. Opportunities represent options or possibilities to add value for stakeholders or otherwise improve the organization. Demand is the need or desire for products and services among internal and external consumers. The outcome of the SVS is value, that is, the perceived benefits, usefulness, and importance of something. The ITIL SVS can enable the creation of many different types of value for a wide group of stakeholders.

The ITIL SVS includes the following components:

- Guiding principles Recommendations that can guide an organization in all circumstances, regardless of changes in its goals, strategies, type of work, or management structure.
- Governance The means by which an organization is directed and controlled.
- Service value chain A set of interconnected activities that an organization performs to deliver a valuable product or service to its consumers and to

facilitate value realization.

- Practices Sets of organizational resources designed for performing work or accomplishing an objective.
- Continual improvement A recurring organizational activity performed at all levels to ensure that an organization's performance continually meets stakeholders' expectations. ITIL 4 supports continual improvement with the ITIL continual improvement model.

The purpose of the SVS is to ensure that the organization continually co-creates value with all stakeholders through the use and management of products and services. The structure of the SVS is shown in Figure 4.1. The left side of the figure shows opportunity and demand feeding into the SVS from both internal and external sources. The right side shows value created for the organization, its customers, and other stakeholders.

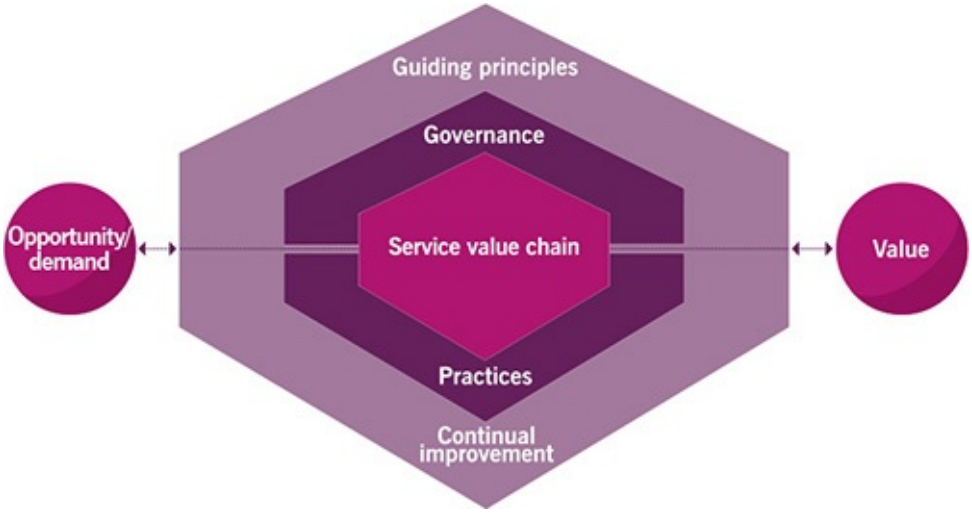

Figure 4.1 The ITIL service value system

The ITIL SVS describes how all the components and activities of the organization work together as a system to enable value creation. These components and activities, together with the organization's resources, can be configured and reconfigured in multiple combinations in a flexible way as circumstances change, but this requires the integration and coordination of activities, practices, teams, authorities and responsibilities, and all parties to be truly effective.

One of the biggest challenges an organization can face when trying to work effectively and efficiently with a shared vision, or to become more Agile and resilient, is the presence of organizational silos. Organizational silos can form in many ways and for many different reasons. Silos can be resistant to change and can prevent easy access to the information and specialized expertise that exists across the organization, which can in turn reduce efficiency and increase both cost and risk. Silos also make it more difficult for communication or collaboration to occur across different groups.

A siloed organization cannot act quickly to take advantage of opportunities or to optimize the use of resources across the organization. It is often unable to make effective decisions about changes, due to limited visibility and many hidden agendas. Practices can also become silos. Many organizations have implemented practices such as organizational change management or incident management without clear interfaces with other practices. All practices should have multiple interfaces with one another. The exchange of information between practices should be triggered at key points in the workflow, and is essential to the proper functioning of the organization.

The architecture of the ITIL SVS specifically enables flexibility and discourages siloed working. The service value chain activities and the practices in the SVS do not form a fixed, rigid structure. Rather, they can be combined in multiple value streams to address the needs of the organization in a variety of scenarios. This publication provides examples of service value streams, but none of them are definite or prescriptive. Organizations should be able to define and redefine their value streams in a flexible, yet safe and efficient manner. This requires continual improvement activity to be carried out at all levels of the organization; the ITIL continual improvement model helps to structure this activity. Finally, the continual improvement and overall operation of an organization are shaped by the ITIL guiding principles. The guiding principles create a foundation for a shared culture across the organization, thus supporting collaboration and cooperation within and between the teams, and removing the need for constraints and controls previously provided by silos.

With these components, the ITIL SVS supports many work approaches, such as Agile, DevOps and Lean (see Glossary), as well as traditional process and project management, with a flexible value-oriented operating model.

An organization can take any number of forms, including, but not limited to, sole trader, company, corporation, firm, enterprise, authority, partnership, charity or institution, or any part or combination thereof, whether incorporated or not, and be either public or private. This means that the scope of the SVS can be a whole organization or a smaller subset of that organization. To achieve the maximum value from the SVS and to properly address the issue of organizational silos, it is preferable to include the whole organization in the scope rather than a subset.

The rest of this chapter will explore each element of the SVS.

Organizational agility and organizational resilience

For an organization to be successful, it must achieve organizational agility to support internal changes, and organizational resilience to withstand and even thrive in changing external circumstances. The organization must also be considered as part of a larger ecosystem of organizations, all delivering,

coordinating, and consuming products and services.

Organizational agility is the ability of an organization to move and adapt quickly, flexibly, and decisively to support internal changes. These might include changes to the scope of the organization, mergers and acquisitions, changing organizational practices, or technologies requiring different skills or organizational structure and changes to relationships with partners and suppliers.

Organizational resilience is the ability of an organization to anticipate, prepare for, respond to, and adapt to both incremental changes and sudden disruptions from an external perspective. External influences could be political, economic, social, technological, legal or environmental. Resilience cannot be achieved without a common understanding of the organization's priorities and objectives, which sets the direction and promotes alignment even as external circumstances change.

The ITIL SVS provides the means to achieve organizational agility and resilience and to facilitate the adoption of a strong unified direction, focused on value and understood by everyone in the organization. It also enables continual improvement throughout the organization.

4.2 Opportunity, demand, and value

Key message

Opportunity and demand trigger activities within the ITIL SVS, and these activities lead to the creation of value. Opportunity and demand are always entering into the system, but the organization does not automatically accept all opportunities or satisfy all demand.

Opportunity represents options or possibilities to add value for stakeholders or otherwise improve the organization. There may not be demand for these opportunities yet, but they can still trigger work within the system. Organizations should prioritize new or changed services with opportunities for improvement to ensure their resources are correctly allocated.

Demand represents the need or desire for products and services from internal and

external customers. A definition of value, and what constitutes value for different stakeholders, can be found in Chapter 2.

4.3 The ITIL guiding principles

Key message

A guiding principle is a recommendation that guides an organization in all circumstances, regardless of changes in its goals, strategies, type of work, or management structure. A guiding principle is universal and enduring.

Table 4.1 Overview of the guiding principles

Guiding principle	Description
Focus on value	Everything that the organization does needs to map, directly or indirectly, to value for the stakeholders. The focus on value principle encompasses many perspectives, including the experience of customers and users.
Start where you are	Do not start from scratch and build something new without considering what is already available to be leveraged. There is likely to be a great deal in the current services, processes, programmes, projects, and people that can be used to create the desired outcome. The current state should be investigated and observed directly to make sure it is fully understood.
Progress iteratively with feedback	Do not attempt to do everything at once. Even huge initiatives must be accomplished iteratively. By organizing work into smaller, manageable sections that can be executed and completed in a timely manner, it is easier to maintain a sharper focus on each effort. Using feedback before, throughout, and after each iteration will ensure that actions are focused and appropriate, even if circumstances change.
Collaborate and promote visibility	Working together across boundaries produces results that have greater buy-in, more relevance to objectives, and increased likelihood of long-term success. Achieving objectives requires information, understanding, and trust. Work and consequences should be made visible, hidden agendas avoided, and information shared to the greatest degree possible.
Think and work holistically	No service, or element used to provide a service, stands alone. The outcomes achieved by the service provider and service consumer will suffer unless the organization works on the service as a whole, not just on its parts. Results are delivered to internal and external customers through the effective and efficient management and dynamic integration of information, technology, organization, people, practices, partners, and agreements, which should all be coordinated to provide a defined value.

Keep it simple and practical	If a process, service, action or metric fails to provide value or produce a useful outcome, eliminate it. In a process or procedure, use the minimum number of steps necessary to accomplish the objective(s). Always use outcome-based thinking to produce practical solutions that deliver results.
Optimize and automate	Resources of all types, particularly HR, should be used to their best effect. Eliminate anything that is truly wasteful and use technology to achieve whatever it is capable of. Human intervention should only happen where it really contributes value.

The guiding principles defined here embody the core messages of ITIL and of service management in general, supporting successful actions and good decisions of all types and at all levels. They can be used to guide organizations in their work as they adopt a service management approach and adapt ITIL guidance to their own specific needs and circumstances. The guiding principles encourage and support organizations in continual improvement at all levels.

These principles are also reflected in many other frameworks, methods, standards, philosophies, and/or bodies of knowledge, such as Lean, Agile, DevOps, and COBIT. This allows organizations to effectively integrate the use of multiple methods into an overall approach to service management.

The guiding principles are applicable to practically any initiative and to all relationships with stakeholder groups. For example, the first principle, focus on value, can (and should) be applied not only to service consumers, but to all relevant stakeholders and their respective definitions of value.

Table 4.1 provides a high-level introduction to the guiding principles. Additional details for each principle are presented later in this chapter.

ITIL, Agile, and DevOps

Agile methods, when applied to software development, focus on the delivery of incremental changes to software products while responding to the changing (or evolving) needs of users. They foster a culture of continual learning, flexibility, and willingness to try new approaches and adapt to rapidly changing needs. Agile ways of working include techniques such as timeboxing work, self-organizing and cross-functional teams, and ongoing collaboration and communication with customers and users.

Agile software development teams often focus on the rapid delivery of product increments at the expense of a more holistic view that considers the operability, reliability, and maintainability of these products in a live environment. Similarly, continual learning and improvement initiatives can focus on bettering the articulation and prioritization of user needs, or streamlining the procedures to develop, test, and deploy working software. While these initiatives can provide valuable outcomes, they also run the risk of being out of sync with other initiatives at a service level.

Just as Agile techniques provide service organizations with a flow of product and software increments, ITIL can also provide software development organizations with a wider perspective and language with which to engage other service teams. Adopting Agile without ITIL can lead to higher costs over time, such as the costs of adopting different technologies and architectures, and costs to release, operate, and maintain software increments. Similarly, implementing ITIL without Agile techniques can risk losing focus on value for customers and users, creating slow-moving and highly centralized bureaucracies.

When Agile and ITIL are adopted together, software development and service management can progress at a similar cadence, share a common terminology, and ensure that the organization continues to co-create value with all its stakeholders. Some of the ways in which ITIL and Agile can work together include:

- streamlining practices such as change control
- establishing procedures to incorporate and prioritize the management of unplanned interruptions (incidents), and to investigate the causes of failure
- separating interactions, if necessary, between 'systems of record' (e.g. the configuration management database) needed to manage services from 'systems of engagement' (e.g. collaboration tools) used by software development teams.

DevOps methods build on Agile software development and service management techniques by emphasizing close collaboration between the roles of software development and technical operations. Using high degrees of automation to free up the time of skilled professionals so that they can focus on value-adding activities, DevOps is able to shine a light on aspects such as operability, reliability, and maintainability of software products that can assist in the management of services. Cultural aspects that DevOps practitioners advocate can, and should, be extended across the value stream and all service value chain activities so that product and service teams are aligned with the same goals and use the same methods.

It is often said that DevOps combines software development techniques (Agile), good governance and a holistic approach to value co-creation (ITIL), and an obsession with learning about and improving the way in which value is generated (Lean). As such, the adoption of DevOps methods presents further opportunities to improve the way in which software products are developed and managed, such as:

- creating fast feedback loops from delivery and support to software development and technology operations
- streamlining value chain activities and value streams so that demand for

work can be quickly converted to value for multiple stakeholders
- differentiating deployment management from release management
- advocating a 'systems view' that emphasizes close collaboration between enterprise governance, service teams, software development, and technology operations.

4.3.1 Focus on value

Key message

All activities conducted by the organization should link back, directly or indirectly, to value for itself, its customers, and other stakeholders.

This section is mostly focused on the creation of value for service consumers. However, a service also contributes to value for the organization and other stakeholders. This value may come in various forms, such as revenue, customer loyalty, lower cost, or growth opportunities. The following recommendations can be adapted to address various stakeholder groups and the value that is created for them by the organization.

4.3.1.1 Who is the service consumer?

When focusing on value, the first step is to know who is being served. In each situation the service provider must, therefore, determine who the service consumer is and who the key stakeholders are (for example, customers, users, or sponsors; see section 2.2 for more details). In doing this, the service provider should consider who will receive value from what is being delivered or improved.

The ITIL story: Axle's new technology

Axle is considering introducing several pieces of new technology into their cars. In the following sections the Axle team looks at what new technology could be introduced and uses the ITIL guiding principles to help decide on the best course of action.

Su: *One aspect of our service we are considering is the collection and return of*

vehicles. This process remains very manual. Some of our regional depots continue to use paper-based forms to register customers. Customers don't want to waste time completing forms for identification when this information has already been provided during the online booking process.

To improve the customer identification process, Axle could use biometric technology to identify our customers.

Marco: *Biometric technology uses scanned graphical data for personal identification. It's fast and reliable, and widely used in other industries. For example, the airline industry is using it for security screening, check-in, and even for aircraft boarding. We could use fingerprint or facial recognition scans to quickly identify our customers, and automate the car collection and return process.*

Radhika: *We need to be mindful of regulations such as GDPR and the possible risks to data security this technology could bring.*

Marco: *Axle also wants to trial automated identification of damage to returned vehicles, including scratches, dents, and broken lights. Potentially the technology could even identify fuel levels. This would automate the calculation of any fuel charges incurred by our customers, which is also a manual process.*

Su: *Our customers want simplicity and speed while maintaining comfort and safety on the road. Biometric technology and car scanning would be a source of opportunity to meet evolving customer demands.*

Marco: *Our services already rely on technology, and the intelligence of smartphones and personal devices to meet customer needs and expectations. The adoption of biometric technology is a natural progression. Anyone who can access their phone with a thumbprint or facial recognition will be comfortable and confident using the same technology to collect or return a car.*

Henri: *We can't make the mistake of trying to implement every innovation at once, even if they all sound like the ideal solution for Axle Car Hire. We need a framework in place to make sure value is realized, and to govern our decisions. It's also important that none of our existing customers are disadvantaged, even as we venture into new surroundings. For example, not all our customers are tech-savvy. This is especially true for our elderly customers, who represent a large percentage of our customer base for leisure travel. We also need to balance innovation with existing operational demands.*

4.3.1.2 The consumer's perspectives of value

Next the service provider must understand what is truly of value to the service

consumer. The service provider needs to know:

- why the consumer uses the services
- what the services help them to do
- how the services help them achieve their goals
- the role of cost/financial consequences for the service consumer
- the risks involved for the service consumer.

Value can come in many forms, such as increased productivity, reduced negative impact, reduced costs, the ability to pursue new markets, or a better competitive position. Value for the service consumer:

- is defined by their own needs
- is achieved through the support of intended outcomes and optimization of the service consumer's costs and risks
- changes over time and in different circumstances.

4.3.1.3 The customer experience

An important element of value is the experience that service consumers have when they interact with the service and the service provider. This is frequently called customer experience (CX) or user experience (UX) depending on the adopted definitions, and it must be actively managed.

CX can be defined as the entirety of the interactions a customer has with an organization and its products. This experience can determine how the customer feels about the organization and its products and services.

CX is both objective and subjective. For example, when a customer orders a product and receives what they ordered at the promised price and in the promised delivery time, the success of this aspect of their experience is objectively measurable. On the other hand, if they don't like the style or layout of the website they are ordering from, this is subjective. Another customer might really enjoy the design.

4.3.1.4 Applying the principle

To apply this principle successfully, consider this advice:

- Know how service consumers use each service Understand their expected outcomes, how each service contributes to these, and how the service consumers perceive the service provider. Collect feedback on value on an
- ongoing basis, not just at the beginning of the service relationship. Encourage a focus on value among all staff Teach staff to be aware of who their customers

are and to understand CX.

- Focus on value during normal operational activity as well as during improvement initiatives The organization as a whole contributes to the value that the customer perceives, and so everybody within the organization must maximize the value they create. The creation of value should not be left only to the people working on exciting projects and new things.
- Include focus on value in every step of any improvement initiative Everybody involved in an improvement initiative needs to understand what outcomes the initiative is trying to facilitate, how its value will be measured, and how they should be contributing to the co-creation of that value.

The ITIL story: Focus on value

Radhika: *When Axle expanded to the Asia-Pacific region, we undertook research focused on customers travelling outside their native countries. The results found that American and European customers travelling to these areas had concerns around unfamiliar road rules and safety.*

Marco: *Axle is introducing a certified, third-party driver assistance system called Axle Aware. The system checks external surroundings and internal conditions in the car. It includes cameras to monitor the area around the car, and an artificial intelligence program with local road rules. It can even let the driver know when fatigue is starting to set in.*

The system will alert the driver to approaching dangers and potential road rule breaches. For example, in Australia, local road rules dictate that drivers are required to give a minimum of 1 metre when passing cyclists at a speed of 60 km/h or less, or 1.5 metres when the speed is more than 60 km/h.

Su: *Many visiting tourists will be mostly focused on driving on the correct side of the road and won't know about this rule, but the Axle Aware system does!*

Marco: *Studies have shown that systems such as this significantly decrease accident rates and serious injuries.*

Su: *This means that the value to our consumers is a safer travel experience. It will be cheaper too, as they will have fewer penalties for breaking rules they are not familiar with!*

Henri: *The value for Axle Car Hire is improved customer satisfaction, reduced repair costs and lower insurance premiums.*

Marco: *This type of innovation will also provide additional value for some of*

our partners and suppliers.

Radhika: *For example, we've updated our contract with our fleet maintenance partner. Maintenance will now include Axle Aware. The value to our maintenance partner is the additional revenue.*

4.3.2 Start where you are

Key message

In the process of eliminating old, unsuccessful methods or services and creating something better, there can be great temptation to remove what has been done in the past and build something completely new. This is rarely necessary, or a wise decision. This approach can be extremely wasteful, not only in terms of time, but also in terms of the loss of existing services, processes, people, and tools that could have significant value in the improvement effort. Do not start over without first considering what is already available to be leveraged.

The ITIL story: Axle's booking appMarco:

Marco: *The Axle booking app was first developed two years ago. The app is no longer meeting business requirements. It can't cater for the advances in technology we're using now, such as the biometric system and the driver assistance system.*

For example, we need our app to have the capability to scan and validate our customers' fingerprints and facial images. The current coding simply can't support that. We need a new app!

4.3.2.1 Assess where you are

Services and methods already in place should be measured and/or observed directly to properly understand their current state and what can be re-used from them. Decisions on how to proceed should be based on information that is as accurate as

possible. Within organizations there is frequently a discrepancy between reports and reality. This is due to the difficulty of accurately measuring certain data, or the unintentional bias or distortion of data that is produced through reports. Getting data from the source helps to avoid assumptions which, if proven to be unfounded, can be disastrous to timelines, budgets, and the quality of results.

Those observing an activity should not be afraid to ask what may seem to be stupid questions. It can sometimes be beneficial for a person with little or no prior knowledge of the service to be part of the observation, as they have no preconceptions of the service, and may spot things that those more closely involved with it would miss.

The ITIL story: Assessing the current state

Henri: *Everyone likes the idea of a new app, and IT is keen to start gathering user requirements so that we can start development. However, before we develop an entirely new app, let's assess the current state of the app we have to see if there's any functionality we can re-use.*

The current process for booking a car meets basic requirements, and doesn't need to change. We just need additional functionality. For example, the process for recording, storing, and calculating points for our loyalty programme won't change.

We should also consider the limits of the technology that our customers use. If we want to introduce biometric data recognition, users will need to have modern devices. I am not sure they all do, so we should investigate constraints and opportunities here.

Marco: *Our current booking app is working well. Incident data indicates that customers make very few calls to the service desk. This indicates that the current functionality is fit for use and meets customer requirements.*

Henri: *However, our focus groups indicate that customers avoid using the app because it's slow and difficult to use. Previously, upgrades focused on technology, not the requirements of our customers. We didn't have the flexibility to easily configure functionality to match new and changing service offerings. So the reliability and usability of the booking app can't be assessed solely using the data from incidents logged.*

We need to confirm these findings with other research.

4.3.2.2 The role of measurement

The use of measurement is important to this principle. It should, however, support

but not replace what is observed, as over-reliance on data analytics and reporting can unintentionally introduce biases and risks in decision-making. Organizations should consider a variety of techniques to develop knowledge of the environments in which they work. Although it is true that some things can only be understood through measuring their effect (for example, natural phenomena such as the wind), direct observation should always be the preferred option. Too often existing data is used with no consideration of direct personal investigation.

It should be noted that the act of measuring can sometimes affect the results, making them inaccurate. For example, if a service desk knows it is being monitored on length of time spent on the phone, it might focus too much on minimizing customer engagement (thus leading to good reports), rather than actually helping users resolve issues to their satisfaction. People are very creative in finding ways to meet the metrics they are measured against. Therefore, metrics need to be meaningful and directly relate to the desired outcome.

> 'When a measure becomes a target, it ceases to be a good measure *Goodhart's Law*'

4.3.2.3 Applying the principle

Having a proper understanding of the current state of services and methods is important to selecting which elements to re-use, alter, or build upon. To apply this principle successfully, consider this advice:

- Look at what exists as objectively as possible, using the customer or the desired outcome as the starting point. Are the elements of the current state fit for purpose and fit for use? There are likely to be many elements of the current services, practices, projects, and skills that can be used to create the desired future state, provided the people making this judgement are objective.
- When examples of successful practices or services are found in the current state, determine if and how these can be replicated or expanded upon to achieve the desired state. In many, if not most, cases, leveraging what already exists will reduce the amount of work needed to transition from the current state to the desired state. There should be a focus on learning and improvement, not just replication and expansion.
- Apply your risk management skills. There are risks associated with re-using existing practices and processes, such as the continuation of old behaviours that are damaging to the service. There are also risks associated with putting something new in place, such as new procedures not being performed correctly. These should be considered as part of the decision-making process, and the risks of making or not making a change evaluated to decide on the best course of action.
- Recognize that sometimes nothing from the current state can be re-used.

Regardless of how desirable it may be to re-use, repurpose and recycle, or even upcycle, there will be times when the only way to achieve the desired result is to start over entirely. It should be noted, however, that these situations are very rare.

4.3.3 Progress iteratively with feedback

Key message

Resist the temptation to do everything at once. Even huge initiatives must be accomplished iteratively. By organizing work into smaller, manageable sections that can be executed and completed in a timely manner, the focus on each effort will be sharper and easier to maintain.

Improvement iterations can be sequential or simultaneous, based on the requirements of the improvement and what resources are available. Each individual iteration should be both manageable and managed, ensuring that tangible results are returned in a timely manner and built upon to create further improvement.

A major improvement initiative or programme may be organized into several significant improvement initiatives, and each of these may, in turn, comprise smaller improvement efforts. The overall initiative or programme, as well as its component iterations, must be continually re-evaluated and potentially revised to reflect any changes in circumstances and ensure that the focus on value has not been lost. This re-evaluation should make use of a wide range of feedback channels and methods to ensure that the status of the initiative and its progress are properly understood.

4.3.3.1 The role of feedback

Whether working to improve a service, group of services, practice, process, technical environment, or other service management element, no improvement iteration occurs in a vacuum. While the iteration is being undertaken, circumstances can change and new priorities can arise, and the need for the iteration may be altered or even eliminated. Seeking and using feedback before, throughout, and after each iteration will ensure that actions are focused and appropriate, even in changing circumstances.

A feedback loop is a term commonly used to refer to a situation where part of the output of an activity is used for new input. In a well-functioning organization,

feedback is actively collected and processed along the value chain. Well-constructed feedback mechanisms facilitate understanding of:

- end user and customer perception of the value created
- the efficiency and effectiveness of value chain activities
- the effectiveness of service governance as well as management controls
- the interfaces between the organization and its partner and supplier network
- the demand for products and services.

Once received, feedback can be analysed to identify improvement opportunities, risks, and issues.

4.3.3.2 Iteration and feedback together

Working in a timeboxed, iterative manner with feedback loops embedded into the process allows for:

- greater flexibility
- faster responses to customer and business needs
- the ability to discover and respond to failure earlier
- an overall improvement in quality.

Having appropriate feedback loops between the participants of an activity gives them a better understanding of where their work comes from, where their outputs go, and how their actions and outputs affect the outcomes, which in turn enables them to make better decisions.

The ITIL story: Progress iteratively

Marco: *It's now been three months since Axle released the first iteration of its new app. We began by making it available solely to trusted VIP customers. We worked with their feedback to refine the booking process.*

Radhika: *We learned that the app needed to be flexible so we could make changes easily based on rapidly evolving customer requirements. For example, our business customers wanted the app to automatically record distance travelled. Working with our product team, we were easily able to add this functionality.*

Su: *The app is now easily configurable, allowing Axle to quickly add new functions and features based on customer feedback.*

4.3.3.3 Applying the principle

To apply this principle successfully, consider this advice:

- Comprehend the whole, but do something Sometimes the greatest enemy to progressing iteratively is the desire to understand and account for everything. This can lead to what is sometimes called 'analysis paralysis', in which so much time is spent analysing the situation that nothing ever gets done about it.
- Understanding the big picture is important, but so is making progress. The ecosystem is constantly changing, so feedback is essential Change is happening constantly, so it is very important to seek and use feedback at all times and at all levels.
- Fast does not mean incomplete Just because an iteration is small enough to be done quickly does not mean that it should not include all the elements necessary for success. Any iteration should be produced in line with the concept of the minimum viable product. A minimum viable product is a version of the final product which allows the maximum amount of validated learning with the least effort.

4.3.4 Collaborate and promote visibility

Key message

When initiatives involve the right people in the correct roles, efforts benefit from better buy-in, more relevance (because better information is available for decision-making) and increased likelihood of long-term success.

Creative solutions, enthusiastic contributions, and important perspectives can be obtained from unexpected sources, so inclusion is generally a better policy than exclusion. Cooperation and collaboration are better than isolated work, which is frequently referred to as 'silo activity'. Silos can occur through the behaviour of individuals and teams, but also through structural causes. This typically happens where functions or business units in an organization are impeded or unable to collaborate, because their processes, systems, documentation, and communications are designed to fulfil the needs of only a specific part of the organization. Applying the guiding principle of think and work holistically (see section 4.3.5) can help organizations to break down barriers between silos of work.

Recognition of the need for genuine collaboration has been one of the driving factors in the evolution of what is now known as DevOps. Without effective collaboration, neither Agile, Lean, nor any other ITSM framework or method will work.

Working together in a way that leads to real accomplishment requires information, understanding, and trust. Work and its results should be made visible, hidden agendas should be avoided, and information should be shared to the greatest degree possible. The more people are aware of what is happening and why, the more they will be willing to help.

When improvement activity occurs in relative silence, or with only a small group being aware of the details, assumptions and rumours can prevail. Resistance to change will often arise as staff members speculate about what is changing and how it might impact them.

4.3.4.1 Whom to collaborate with

Identifying and managing all the stakeholder groups that an organization deals with is important, as the people and perspectives necessary for successful collaboration can be sourced within these stakeholder groups. As the name suggests, a stakeholder is anyone who has a stake in the activities of the organization, including the organization itself, its customers and/or users, and many others. The scope of stakeholders can be extensive.

The first and most obvious stakeholder group is the customers. The main goal of a service provider is to facilitate outcomes that its customers are interested in, so the customers have a large stake in the service provider's ability to manage services effectively. Some organizations, however, do a poor job of interacting with customers. A service provider may feel that it is too difficult to get input or feedback from the customer, and that the resulting delays are a waste of time. Equally, customers may feel that, after they have defined their requirements, the service provider can be left to deliver the service with no further contact needed. When it comes to the improvement of a service provider's practices, the customer may not see any need to be involved at all. In the end, however, the right level of collaboration with customers will lead to better outcomes for the organization, its customers, and other stakeholders.

Other examples of stakeholder collaboration include:

- developers working with other internal teams to ensure that what is being developed can be operated efficiently and effectively. Developers should collaborate with technical and non-technical operational teams to make sure that they are ready, willing, and able to transition the new or changed service into operation, perhaps even participating in testing. Developers can also work

with operations teams to investigate defects (problems) and to develop workarounds or permanent fixes to resolve these defects

- suppliers collaborating with the organization to define its requirements and brainstorm solutions to customer problems
- relationship managers collaborating with service consumers to achieve a comprehensive understanding of service consumer needs and priorities
- customers collaborating with each other to create a shared understanding of their business issues
- internal and external suppliers collaborating with each other to review shared processes and identify opportunities for optimization and potential automation.

4.3.4.2 Communication for improvement

The contribution to improvement of each stakeholder group at each level should be understood; it is also important to define the most effective methods to engage with them. For example, the contribution to improvement from customers of a public cloud service may be through a survey or checklist of options for different functionalities. For an internal customer group, the contribution to improvement may come from feedback solicited via a workshop or a collaboration tool on the organization's intranet.

Some contributors may need to be involved at a very detailed level, while others can simply be involved as reviewers or approvers. Depending on the service and the relationship between the service provider and the service consumer, the expectations about the level and type of collaboration can vary significantly.

4.3.4.3 Increasing urgency through visibility

When stakeholders (whether internal or external) have poor visibility of the workload and progression of work, there is a risk of creating the impression that the work is not a priority. If an initiative is communicated to a team, department, or another organization and then is never, or rarely, mentioned again, the perception will be that the change is not important. Equally, when staff members attempt to prioritize improvement work versus other tasks that have daily urgency, improvement work may seem to be a low-priority activity unless its importance has been made transparent and it is supported by the organization's management.

Insufficient visibility of work leads to poor decision-making, which in turn impacts the organization's ability to improve internal capabilities. It will then become difficult to drive improvements as it will not be clear which ones are likely to have the greatest positive impact on results. To avoid this, the organization needs to perform such critical analysis activities as:

- understanding the flow of work in progress
- identifying bottlenecks, as well as excess capacity
- uncovering waste.

It is important to involve and address the needs of stakeholders at all levels. Leaders at various levels should also provide appropriate information relating to the improvement work in their own communications to others. Together, these actions will serve to reinforce what is being done, why it is being done, and how it relates to the stated vision, mission, goals, and objectives of the organization. Determining the type, method, and frequency of such messaging is one of the central activities related to communication.

The ITIL story: Working collaboratively

Henri: *As well as being iterative, our work on the new Axle booking app is also collaborative. We include many of our teams, such as developers, testers, and support staff, and of course, our customers and users. This approach enables us to improve our services in a more responsive and targeted manner, based on feedback.*

4.3.4.4 Applying the principle

To apply this principle successfully, consider this advice:

- Collaboration does not mean consensus It is not necessary, or even always wise, to get consensus from everyone involved in an initiative before proceeding. Some organizations are so concerned with getting consensus that they try to make everyone happy and end up either doing nothing or producing something
- that does not properly suit anyone's needs. Communicate in a way the audience can hear In an attempt to bring different stakeholders into the loop, many organizations use very traditional methods of communication, or they use the same method for all communication. Selecting the right method and message for each audience is critical for success.
- Decisions can only be made on visible data Making decisions in the absence of data is risky. Decisions should be made about what data is needed, and therefore what work needs to be made visible. There may be a cost to collecting data, and the organization must balance that cost against the benefit and intended usage of the data.

4.3.5 Think and work holistically

Key message

No service, practice, process, department, or supplier stands alone. The outputs that the organization delivers to itself, its customers, and other stakeholders will suffer unless it works in an integrated way to handle its activities as a whole, rather than as separate parts. All the organization's activities should be focused on the delivery of value.

Services are delivered to internal and external service consumers through the coordination and integration of the four dimensions of service management (see Chapter 3).

Taking a holistic approach to service management includes establishing an understanding of how all the parts of an organization work together in an integrated way. It requires end-to-end visibility of how demand is captured and translated into outcomes. In a complex system, the alteration of one element can impact others and, where possible, these impacts need to be identified, analysed and planned for.

The ITIL story: Think and work holistically

Su: *Currently, Axle is working on many initiatives. We have a schedule of iterative releases of our new booking app, as well as our Axle Aware advanced driver assistance system, and the new biometric scanning for collection and return of vehicles.*

Henri: *With so much activity, we need to understand the impacts both upstream and downstream. For example, a decision to expand our booking app with a new functionality would need to consider any resource constraints for our support teams.*

4.3.5.1 Applying the principle

To apply this principle successfully, consider this advice:

- Recognize the complexity of the systems Different levels of complexity require different heuristics for decision-making. Applying methods and rules designed for a simple system can be ineffective or even harmful in a complex system, where relationships between components are complicated and change more
- frequently. Collaboration is key to thinking and working holistically If the right

mechanisms are put in place for all relevant stakeholders to collaborate in a timely manner, it will be possible to address any issue holistically without being unduly delayed.

- Where possible, look for patterns in the needs of and interactions between system elements Draw on knowledge in each area to identify what is essential for success, and which relationships between elements influence the outcomes. With this information, needs can be anticipated, standards can be set, and a holistic view point can be achieved.
- Automation can facilitate working holistically Where the opportunity and sufficient resources are available, automation can support end-to-end visibility for the organization and provide an efficient means of integrated management.

4.3.6 Keep it simple and practical

Key message

Always use the minimum number of steps to accomplish an objective. Outcome-based thinking should be used to produce practical solutions that deliver valuable outcomes. If a process, service, action, or metric fails to provide value or produce a useful outcome, then eliminate it. Although this principle may seem obvious, it is frequently ignored, resulting in overly complex methods of work that rarely maximize outcomes or minimize cost.

Trying to provide a solution for every exception will often lead to over-complication. When creating a process or a service, designers need to think about exceptions, but they cannot cover them all. Instead, rules should be designed that can be used to handle exceptions generally.

The ITIL story: Judging what to keep

Su: *Axle's marketing department has indicated they would like to launch a new end-of-year promotion. The promotion would include a free upgrade to a luxury vehicle during February and the chance to win an overseas holiday.*

To enter, customers will submit an article titled 'My Best Driving Holiday Adventure'. The marketing team will then collect and analyse the customer data and create an app that targets their travel preferences.

Henri: *Our developers are already busy with an implementation schedule for biometric services. We need speed to market for this functionality. We must prioritize our work based on the expected value.*

4.3.6.1 Judging what to keep

When analysing a practice, process, service, metric, or other improvement target, always ask whether it contributes to value creation.

When designing or improving service management, it is better to start with an uncomplicated approach and then carefully add controls, activities, or metrics when it is seen that they are truly needed.

Critical to keeping service management simple and practical is understanding exactly how something contributes to value creation. For example, a step in a process may be perceived by the operational staff involved as a waste of time. However, from a corporate perspective, the same step may be important for regulatory compliance and therefore valuable in an indirect, but nevertheless important, way. It is necessary to establish and communicate a holistic view of the organization's work so that individual teams or groups can think holistically about how their work is being influenced by, and in turn influences, others.

The ITIL story: Judging what to keep

Marco: *Our original booking app captured a lot of data, such as how long it took a customer to complete each form in the booking app. But we discovered that the data provided little value for decision-making. The true value lay in how long the overall booking process took. We refined the booking app fields and improved its overall speed by removing this data capture function.*

4.3.6.2 Conflicting objectives

When designing, managing, or operating practices, be mindful of conflicting objectives. For example, the management of an organization may want to collect a large amount of data to make decisions, whereas the people who must do the record-keeping may want a simpler process that does not require as much data entry. Through the application of this and the other guiding principles, the organization should agree on a balance between its competing objectives. In this example, this could mean that services should only generate data that will truly provide value to the decision-making process, and record-keeping should be simplified and automated where possible to maximize value and reduce non-value-adding work.

4.3.6.3 Applying the principle

To apply this principle successfully, consider this advice:

- Ensure value Every activity should contribute to the creation of value.
- Simplicity is the ultimate sophistication It may seem harder to simplify, but it is
- often more effective. Do fewer things, but do them better Minimizing activities to include only those with value for one or more stakeholders will allow more focus on the quality of those actions.
- Respect the time of the people involved A process that is too complicated and bureaucratic is a poor use of the time of the people involved.
- Easier to understand, more likely to adopt To embed a practice, make sure it is easy to follow.
- Simplicity is the best route to achieving quick wins Whether in a project, or when improving daily operations activities, quick wins allow organizations to demonstrate progress and manage stakeholder expectations. Working in an iterative way with feedback will quickly deliver incremental value at regular intervals.

4.3.7 Optimize and automate

Key message

Organizations must maximize the value of the work carried out by their human and technical resources. The four dimensions model (outlined in Chapter 3) provides a holistic view of the various constraints, resource types, and other areas that should be considered when designing, managing, or operating an organization. Technology can help organizations to scale up and take on frequent and repetitive tasks, allowing human resources to be used for more complex decision-making. However, technology should not always be relied upon without the capability of human intervention, as automation for automation's sake can increase costs and reduce organizational robustness and resilience.

Optimization means to make something as effective and useful as it needs to be. Before an activity can be effectively automated, it should be optimized to whatever degree is possible and reasonable. It is essential that limits are set on the

optimization of services and practices, as they exist within a set of constraints which may include financial limitations, compliance requirements, time constraints, and resource availability.

4.3.7.1 The road to optimization

There are many ways in which practices and services can be optimized. The concepts and practices described in ITIL, particularly the practices of continual improvement, and measurement and reporting (see sections 5.1.2 and 5.1.5), are essential to this effort. The specific practices an organization uses to improve and optimize performance may draw upon guidance from ITIL, Lean, DevOps, Kanban, and other sources. Regardless of the specific techniques, the path to optimization follows these high-level steps:

- Understand and agree the context in which the proposed optimization exists This
- includes agreeing the overall vision and objectives of the organization. Assess the current state of the proposed optimization This will help to understand where it can be improved and which improvement opportunities are likely to produce the biggest positive impact.
- Agree what the future state and priorities of the organization should be, focusing on simplification and value This typically also includes standardization of practices and services, which will make it easier to automate or optimize further at a later point.
- Ensure the optimization has the appropriate level of stakeholder engagement and commitment
- Execute the improvements in an iterative way Use metrics and other feedback to check progress, stay on track, and adjust the approach to the optimization as needed.
- Continually monitor the impact of optimization This will help to identify opportunities to improve methods of working.

4.3.7.2 Using automation

Automation typically refers to the use of technology to perform a step or series of steps correctly and consistently with limited or no human intervention. For example, in organizations adopting continuous deployment, it refers to the automatic and continuous release of code from development through to live, and often automatic testing occurring in each environment. In its simplest form, however, automation could also mean the standardization and streamlining of manual tasks, such as defining the rules of part of a process to allow decisions to be made 'automatically'. Efficiency can be greatly increased by reducing the need for human involvement to stop and evaluate each part of a process.

Opportunities for automation can be found across the entire organization. Looking for opportunities to automate standard and repeating tasks can help save the organization costs, reduce human error, and improve employee experience.

The ITIL story: Optimize and automate

Marco: *Axle has started to trial the new biometric technology, and the tests are going well. We're keen to implement this technology in all our depots.*

Radhika: *Before Axle introduced biometrics, there were many manual, paper-based processes. Axle staff used paper checklists to carry out vehicle damage checks. Their notes then had to be entered in a database, which was only available on desktop computers. It was not real time or accessible across other systems.*

Su: *This work was usually put aside until the end of the day, and details were often lost. We had to improve the process of data capture before automating.*

Radhika: *We can automate almost anything. But let's get the business rules and processes right first.*

4.3.7.3 Applying the principle

To apply this principle successfully, consider this advice:

- Simplify and/or optimize before automating Attempting to automate something that is complex or sub-optimal is unlikely to achieve the desired outcome. Take time to map out the standard and repeating processes as far as possible, and streamline where you can (optimize). From there you can start to automate.
- Define your metrics The intended and actual result of the optimization should be evaluated using an appropriate set of metrics. Use the same metrics to define the baseline and measure the achievements. Make sure that the metrics are
- outcome-based and focused on value. Use the other guiding principles when applying this one When optimizing and automating, it is smart to follow the other principles as well:
  - Progress iteratively with feedback Iterative optimization and automation will make progress visible and increase stakeholder buy-in for future iterations.
  - Keep it simple and practical It is possible for something to be simple, but not optimized, so use these two principles together when selecting improvements.

- Focus on value Selecting what to optimize and automate and how to do so should be based on what will create the best value for the organization.
- Start where you are The technology already available in the organization may have features and functionalities that are currently untapped or under-utilized. Make use of what is already there to implement opportunities for optimization and automation quickly and economically.

4.3.8 Principle interaction

As well as being aware of the ITIL guiding principles, it is also important to recognize that they interact with and depend upon each other. For example, if an organization is committed to progressing iteratively with feedback, it should also think and work holistically to ensure that each iteration of an improvement includes all the elements necessary to deliver real results. Similarly, making use of appropriate feedback is key to collaboration, and focusing on what will truly be valuable to the customer makes it easier to keep things simple and practical.

Organizations should not use just one or two of the principles, but should consider the relevance of each of them and how they apply together. Not all principles will be critical in every situation, but they should all be reviewed on each occasion to determine how appropriate they are.

4.4 Governance

4.4.1 Governing bodies and governance

Key message

Every organization is directed by a governing body, i.e. a person or group of people who are accountable at the highest level for the performance and compliance of the organization. All sizes and types of organization perform governance activities; the governing body may be a board of directors or executive managers who take on a separate governance role when they are performing governance activities. The governing body is accountable for the organization's compliance with policies and any external regulations.

Organizational governance is a system by which an organization is directed and